SEQUENCE LISTING

<110> Fang-Tseh (Frank) CHANG et al.

<120> METHODS AND COMPOSITIONS FOR PEARL
OYSTER CULTIVATION

<130> 505493000120

<140> To Be Assigned
<141> Herewith

<150> 60/310,070
<151> 2001-08-02

<160> 6

<170> FastSEQ for Windows Version 4.0

<210> 1
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<400> 1

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acggtccgta tgactggcac actatatcta gttgctttaa ggcatgtgga agtaaagaga     300
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ctgaattcga ttcagaggac gaaaaacttc atgttaaact gaagaatctt gttgatggac     480
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acggtgacta cggtagtaat ggtaacaatg gtggaaacgg aacaatggt aataacggtg    1380
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ccagaagggt gcttgatgca ttgcggaacg ttgaaggata tgaggatggt accacgctga    1800
gcaagtatgg aactagacgt cccacacaga gaaacataaa acctttaact gtgtacaaaa    1860
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<210> 2
<211> 1811
<212> DNA
<213> Pinctada maxima

<400> 2

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tggattggga tactgtgaac cttcaggtga aagcagctgt aaagccggat ttagctacaa       180
tagagacata tgccaaggtc cgtatcattg gcacactata tctagttgct ataaggcatg       240
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taataacgga ataacggtg gcaatggcaa caacggaaac aatggtaata gtaacaacgg      1080
aaataatggt aatggtaaca acggaaataa cggtggcaat ggcaacaacg aaacaatgg      1140
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tctacgtgtg tacaaaaact ccatataatg atcatggcga gagaatgacg acgcttcttc      1740
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<210> 3
<211> 2363
<212> DNA
<213> Pinctada fucata

<400> 3

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cctaatggtg acggaatctg taaacaattg aatgaaacca aatgtgatgc agggtttagc       180
tatgatagga gtatatgtga aggtcctcat tattggcaca ccatatcgaa atgcttcatt       240
gcatgtggaa ttggacagag acaatctcca atcaacatcg tttcttatga tgctaaattt       300
cgtcagcgtt tgccaaaatt gaaattcaag ccacatatgg agaaattaaa aacagaagtg       360
accaatcatc agaaccgagc tccagagttc gagccagagg atggggaaaa tctgtacgtg       420
aagctaaata acctagtgga cggtcattat aaattccata atcttcacgt tcataatggt       480
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ggagcattcc ctggtcataa cgattttgtc gtcgttggag ttttttcttga ggtcggagat     660
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<210> 4
<211> 611
<212> PRT
<213> Pinctada margaritifera

<400> 4

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                20                  25                  30
Asp Met Asp Lys Thr Tyr Arg Asn Arg Trp Gly Asn Cys His Tyr Ser
                35                  40                  45
Gly Gly Ser Ser Cys Asp Ala Gly Phe Ser Tyr Asn Arg Glu Gln Asn
        50                  55                  60
Glu Glu Gln Cys His Gly Pro Tyr Asp Trp His Thr Ile Ser Ser Cys
65                  70                  75                  80
Phe Lys Ala Cys Gly Ser Lys Glu Arg Gln Ser Pro Ile Asn Ile Trp
                85                  90                  95
Ser His Arg Ala Leu Phe Arg Lys Leu Pro Arg Leu Lys Phe Lys Pro
                100                 105                 110
His Met Lys Ser Leu Asp Thr Lys Val Ser Asn His Gln Asn His Ala
            115                 120                 125
Pro Glu Phe Asp Ser Glu Asp Glu Lys Leu His Val Lys Leu Lys Asn
        130                 135                 140
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```
Leu Val Asp Gly His Tyr Lys Phe Arg Asn Leu His Ile His Ile Gly
145                 150                 155                 160
Lys Ser Arg Arg Lys Gly Ser Glu His Ser Val Asp Arg His Phe Thr
                165                 170                 175
Pro Met Glu Ala His Leu Val Phe Arg His Asp Glu Lys Lys Glu Ile
                180                 185                 190
Lys Pro Pro Arg Ile Trp Leu Gly Arg Asn Phe Ser Gly Ile Asn Glu
                195                 200                 205
Phe Val Val Val Gly Val Phe Leu Glu Val Gly Asp Glu Gly Tyr Gly
    210                 215                 220
Asp Glu Pro Asp Asp Asp Glu Cys Lys Arg Ile Leu Lys Gly His Tyr
225                 230                 235                 240
Asp His Cys Asp Asn Asn Gly Asp Asn Gly Tyr Asn Cys Asp Asn Gly
                245                 250                 255
Asn Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Tyr Asn
                260                 265                 270
Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asp Asn Gly Asn Ser Gly
                275                 280                 285
Asn Asn Gly Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Tyr Asn
    290                 295                 300
Gly Asn Asn Gly Asp Asn Gly Asn Ser Gly Asn Asn Gly Asn Gly Asn
305                 310                 315                 320
Asn Gly Tyr Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Arg Asn Asn
                325                 330                 335
Gly Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asp Asn Gly Asn
                340                 345                 350
Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Asp Asn
                355                 360                 365
Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn Gly
    370                 375                 380
Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly
385                 390                 395                 400
Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn
                405                 410                 415
Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asp Tyr
                420                 425                 430
Gly Ser Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly
                435                 440                 445
Asp Asn Gly Asn Gly Asp Asn Gly Tyr Asn Gly Asp Asn Gly Asn Ser
    450                 455                 460
Asp Gly Arg Leu Arg Arg Trp Asp Leu Glu Asn Val Arg Arg Met His
465                 470                 475                 480
Thr Glu Arg Tyr His Phe Ser Arg Arg Cys Ile Val Lys Lys Ala Lys
                485                 490                 495
Arg Leu Ser Arg Ile Leu Glu Cys Ala Tyr Arg His Lys Lys Val Arg
                500                 505                 510
Glu Phe Lys Arg Asn Gly Glu His Lys Gly Leu Asp Val Glu Ile Thr
                515                 520                 525
Pro Glu Met Val Leu Pro Pro Ile Lys Tyr Arg Gln Tyr Tyr Thr Tyr
    530                 535                 540
Glu Gly Ser Leu Thr Thr Pro Pro Cys Asp Glu Thr Val Leu Trp Val
545                 550                 555                 560
Val Glu Lys Cys His Val Gln Val Ser Arg Arg Val Leu Asp Ala Leu
                565                 570                 575
Arg Asn Val Glu Gly Tyr Glu Asp Gly Thr Thr Leu Ser Lys Tyr Gly
                580                 585                 590
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Thr Arg Arg Pro Thr Gln Arg Asn Ile Lys Pro Leu Thr Val Tyr Lys
    595   600   605

Asn Phe Ile
    610

<210> 5
<211> 568
<212> PRT
<213> Pinctada maxima

<400> 5
Met Trp Arg Met Thr Thr Leu Leu His Leu Thr Ala Leu Leu Val Leu
1   5   10   15

Ile Pro Leu Cys His Cys Ala Ser Met His Arg His Asp His Tyr Met
        20   25   30

Asp Met Asp Gln Thr Tyr Pro Asn Gly Leu Gly Tyr Cys Glu Pro Ser
      35   40   45

Gly Glu Ser Ser Cys Lys Ala Gly Phe Ser Tyr Asn Arg Asp Ile Cys
    50   55   60

Gln Gly Pro Tyr His Trp His Thr Ile Ser Ser Cys Tyr Lys Ala Cys
65   70   75   80

Gly His Lys Arg Arg Gln Ser Pro Ile Asn Ile Trp Ser His Lys Ala
          85   90   95

Val Phe Leu Pro Tyr Leu Pro Arg Leu Lys Phe Lys Pro His Met Lys
        100   105   110

Ser Leu Asp Thr Asp Val Thr Asn His Gln Asn Arg Ala Pro Glu Phe
      115   120   125

Glu Pro Glu Asp Gly Asp Lys Leu His Val Lys Leu Lys Asn Leu Val
    130   135   140

Asp Gly His Tyr Lys Phe His Asn Leu His Ile His Asn Gly Lys Ser
145   150   155   160

Arg Arg Lys Gly Ser Glu His Ser Val Asn Arg His Phe Thr Pro Met
          165   170   175

Glu Ala His Leu Val Phe His His Asp Asp Lys Lys Glu Ile Lys Pro
        180   185   190

Pro Arg Val Lys Leu Gly Gly Val Tyr Ala Gly Arg Asn Lys Phe Val
        195   200   205

Val Val Gly Val Phe Leu Glu Val Gly Asp Glu Gly Tyr Gly Asp Glu
    210   215   220

Pro Asp Asp Asp Glu Cys Lys Arg Ile Leu Lys Gly His Cys Glu Asn
225   230   235   240

Asn Gly Asp Asn Gly Asn Asn Cys Asp Asn Gly Asn Asn Gly Asn Asn
        245   250   255

Asp Asn Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Tyr
        260   265   270

Asn Gly Asn Asn Gly Asp Asn Gly Asn Asn Gly Asn Gly Asn Gly Asn
        275   280   285

Asn Gly Tyr Asn Gly Asn Asn Gly Tyr Asn Gly Asn Asn Gly Asn Asn
        290   295   300

Gly Asn Gly Asn Asn Asp Asn Asn Gly Asn Asp Asn Asn Gly Asn Asn
305   310   315   320

Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly Asn
        325   330   335

Asn Gly Asn Gly Asn Asn Gly Asn Asn Gly Gly Asn Gly Asn Asn Gly
        340   345   350

Asn Asn Gly Asn Ser Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn Gly
        355   360   365

Asn Asn Gly Gly Asn Gly Asn Asn Gly Asn Asn Gly Asn Gly Asn Asn
370   375   380

Glu Asn Asn Gly Asn Gly Ser Asn Gly Asn Asn Gly Gly Asn Gly Asn
385   390   395   400

Asn Gly Asn Asn Gly Asp Asn Gly Asn Gly Asp Asn Gly Tyr Asn Gly
405   410   415

Asp Asn Gly Asn Ser Asp Gly Arg Leu Arg Arg Trp Asp Leu Ala Asn
420   425   430

Val Arg Arg Met His Ala Glu Arg Tyr His Phe Ser Gly Gly Cys Ile
435   440   445

Val Lys Lys Ala Lys Arg Leu Ser Arg Ile Leu Glu Cys Ala Tyr Arg
450   455   460

His Lys Lys Val Arg Glu Phe Lys Arg Asn Gly Glu Glu Lys Gly Leu
465   470   475   480

Asp Val Asp Ile Thr Pro Glu Met Val Leu Pro Pro Met Lys Tyr Arg
485   490   495

His Tyr Tyr Thr Tyr Glu Gly Ser Leu Thr Thr Pro Pro Cys Asn Glu
500   505   510

Thr Val Leu Trp Val Val Glu Lys Cys His Val Gln Val Ser Arg Arg
515   520   525

Val Leu Asp Ala Leu Arg Asn Val Glu Gly Tyr Glu Asp Gly Thr Thr
530   535   540

Leu Ser Lys Tyr Gly Thr Arg Arg Pro Thr Gln Arg Asn Lys His Pro
545   550   555   560

Leu Arg Val Tyr Lys Asn Ser Ile
565

<210> 6
<211> 447
<212> PRT
<213> Pinctada fucata

<400> 6
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20   25   30

Tyr Pro Asn Gly Asp Gly Ile Cys Lys Gln Leu Asn Glu Thr Lys Cys
35   40   45

Asp Ala Gly Phe Ser Tyr Asp Arg Ser Ile Cys Glu Gly Pro His Tyr
50   55   60

Trp His Thr Ile Ser Lys Cys Phe Ile Ala Cys Gly Ile Gly Gln Arg
65   70   75   80

Gln Ser Pro Ile Asn Ile Val Ser Tyr Asp Ala Lys Phe Arg Gln Arg
85   90   95

Leu Pro Lys Leu Lys Phe Lys Pro His Met Glu Lys Leu Lys Thr Glu
100   105   110

Val Thr Asn His Gln Asn Arg Ala Pro Glu Phe Glu Pro Glu Asp Gly
115   120   125

Glu Asn Leu Tyr Val Lys Leu Asn Asn Leu Val Asp Gly His Tyr Lys
130   135   140

Phe His Asn Leu His Val His Asn Gly Arg Thr Arg Arg Lys Gly Ser
145   150   155   160

Glu His Ser Val Asn Gly Arg Phe Thr Pro Met Glu Ala His Leu Val
165   170   175

Phe His His Asp Asp Gln Thr His Phe Glu Pro Thr Arg Thr Lys Leu
180   185   190

6

```
Gly Gly Ala Phe Pro Gly His Asn Asp Phe Val Val Val Gly Val Phe
        195                 200             205
Leu Glu Val Gly Asp Asp Gly Phe Gly Asp Glu Pro Asp Asp Glu Glu
    210             215                 220
Cys Lys His Ile Leu Lys Gly His His Pro Asp Asn Asn Glu Asn Gly
225             230                 235                     240
Asn Gly Asp Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn
            245                 250                 255
Gly Asp Asn Gly Asn Asn Ser Tyr Asn Gly Asp Asn Gly Asn Asn Gly
        260                 265                 270
Val Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn Gly Asp
        275                 280                 285
Asn Gly Asn Asn Gly Tyr Asn Gly Asp Asn Gly Asn Asn Gly Asp Asn
        290                 295                 300
Gly Asn Asn Gly Glu Asn Gly Asn Asn Gly Glu Asn Gly Asn Asn Gly
305             310                 315                     320
Glu Asn Gly His Lys His Gly Cys Arg Val Lys Lys Ala Lys His Leu
            325                 330                 335
Ser Arg Ile Leu Glu Cys Ala Tyr Arg Asn Asp Lys Val Arg Glu Phe
            340                 345                 350
Lys Lys Val Gly Glu Glu Glu Gly Leu Asp Val His Leu Thr Pro Glu
            355                 360                 365
Met Ala Leu Pro Pro Leu Lys Tyr Arg His Tyr Tyr Thr Tyr Glu Gly
    370             375                 380
Ser Leu Thr Thr Pro Pro Cys Thr Glu Ser Val Leu Trp Val Val Gln
385             390                 395                     400
Lys Cys His Val Gln Val Ser Arg Arg Val Leu His Ala Leu Arg Asn
                405                 410                 415
Val Glu Gly Tyr Lys Asp Gly Thr Thr Leu Arg Lys Tyr Gly Thr Arg
            420                 425                 430
Arg Pro Thr Gln Lys Asn Lys Val Thr Val Tyr Lys Ser Phe Lys
        435                 440                 445
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